

### Claims

1. A voice message waiting indication system for a single line of a telephone network that includes a message status indication device, a message notification server to provide message notification and a voicemail server to store messages, said voicemail server having multiple mailboxes and associated identification numbers that identify respective ones of the multiple mailboxes, said device comprising:

respective indicators associated with respective mailboxes,  
a detector to detect an identification number associated with the respective mailboxes, and  
a message indication controller responsive to the detector to activate a respective one of the indicators identified by a unique identification number associated with a mailbox having a voicemail message.

2. The voice messaging device of claim 1, wherein the indicators include an audio tone generator.

3. The voice messaging device of claim 2, wherein said audio tone generator is unique for each of the indicators.

4. The voice messaging device of claim 1, wherein said indicators provide both audio and visual indications.

5. A voicemail message waiting indication system for use with a telephone network that includes a message waiting indication device and a voicemail system in the network that stores voicemail messages and that sends a message status notification, said device comprising:

a message indicator that indicates message status, and  
a message indication controller that obtains information from the voicemail system indicative of a new message, said controller being responsive to an incoming call

to break communication with the voicemail system during message status check and to go on-hook to receive the incoming call.

6. The device of claim 5, wherein said controller is responsive to at least one of a caller-ID signal and an in-band call-waiting tone signal to break communication with the voicemail system.

7. A voicemail message waiting indication system for use with a voicemail server and a message notification server, said system comprising:

a message notification channel that receives information from the message notification server during an off-hook condition indicative of a new message received by the voicemail server, and

a controller responsive to the information to break communication with one of the message notification server and the voicemail server to go on-hook to receive an incoming call.

8. A voicemail message waiting indication device for use with a telephone network that includes a voicemail server and a message notification server, said device comprising:

an indicator capable of being toggled to indicate presence or absence of a message of said voicemail server, and

a message indication controller responsive to a unique identification of a ring-back signal to determine whether to toggle the indicator.

9. The notification device of claim 8, wherein said unique identification comprises a caller-ID signal of an incoming call or call-waiting call.

10. The voicemail indication device of claim 8, wherein the voicemail server has multiple mailboxes and multiple associated IDs, said device further comprising multiple indicators associated with the respective mailboxes, and said controller responsive to a respective ID to toggle respective associated indicators.

11. The voicemail indication device of claim 8, further comprising a memory that stores a history of incoming calls, said device further comprising a server ID list that identifies certain caller IDs of the message notification server to exclude the certain caller IDs of the server ID list from the history of incoming calls.
12. The voicemail indication of claim 8, wherein the voicemail indicator includes an audio indicator to inform a subscriber of new messages.
13. The voicemail indication of claim 9, wherein said voicemail indicator includes an audio indicator to inform the subscriber of new messages by providing different tones for different mailboxes.
14. A method of providing voice message waiting indications for multiple sub-mailboxes of a single line of a telephone network, said method comprising:
  - providing respective indicators for the respective sub-mailboxes,
  - providing unique identification numbers that identify respective ones of the multiple sub-mailboxes in a voicemail server,
  - detecting an identification number associated of a sub-mailbox having a message,
  - and
  - toggling a respective indicator in response to a unique identification number associated with a mailbox having a voicemail message.
15. The method of claim 14, further comprising:
  - generating an audio indication of a new message in response to said detecting.
16. The method of claim 15, further comprising:
  - generating unique audio indications for each of the respective indicators.

17. A method of capturing an incoming call during a check of message status in a telephone network providing call waiting wherein the network includes a voicemail system that stores voice messages in a server and a message notification server that provides an indication of new messages, said method comprising:

accessing the voicemail system to perform a status check for messages or to retrieve messages,

monitoring incoming call signals during said accessing to detect the presence of an incoming call, and

in response to detecting an incoming call, interrupting communication with the voicemail system during said accessing and monitoring to go on-hook to receive the incoming call.

18. The method of claim 17, further comprising monitoring at least one of a caller-ID signal and an in-band call-waiting tone signal to initiate said interrupting step.

19. A method of providing voicemail message waiting indication in a telephone network that includes a voicemail server and a message notification server, said method comprising:

providing an indicator capable of being toggled to indicate presence or absence of a message of said voicemail server, and

responding to a unique identification of a ring-back signal generated by one of the servers of the telephone network to determine whether to toggle the indicator.

20. The method of claim 19, wherein said unique identification comprises a caller-ID signal of an incoming call or call-waiting call.

21. The method of claim 19, wherein the voicemail server has multiple mailboxes and multiple associated IDs, said method further comprising:

providing multiple indicators associated with the respective mailboxes, and  
responding to a respective ID to toggle an associated indicator.

22. The method of claim 19, further comprising:  
storing a history of incoming calls,  
displaying a list of caller-IDs that identifies incoming caller IDs, and  
excluding caller IDs of the servers from the list of caller-IDs.
23. The method of claim 19, further comprising:  
generating an audio indication to inform a subscriber of new messages.
24. The method of claim 23, further comprising:  
generating different tones for each of multiple mailboxes of a voice message system.
25. In a telephone network that includes a voicemail server that stores messages and a message notification server that notifies a subscriber device of a message stored in the voicemail server by initiating a callback, the improvement comprising:  
multiple mailbox partitions associated with a single telephone line of the network,  
respective unique IDs associated with respective ones of the mailbox partitions,  
and  
a controller that stores a voicemail message in a partition associated with one of the unique IDs and that effects transmission of a voicemail status stored in a partition associated with one of the unique IDs.
26. The improvement of claim 25, wherein the controller transmits one of multiple unique caller IDs to identify a partition having a voicemail message.
27. In a telephone network that includes a voicemail server and a call-back message notification server, the improvement comprising:  
a controller of said message notification server that automatically effects a call to a subscriber device in response to one of receipt of a new message, a change in message status, and a lapse of a predetermined period of time since a prior call.

28. In a telephone network that includes a voicemail server that stores messages and a message notification server that notifies a subscriber device of a message stored in the voicemail server by initiating a callback, the improvement comprising:

at least one assigned ID number associated with messages of said voicemail server, and

a controller responsive to a CPE device to transmit a unique ID number according to the status of messages of said voice mail server.

29. The improvement of claim 28, wherein one unique ID number is transmitted when a message is present and another unique ID number is transmitted when no message is present.

30. The improvement of claim 28, wherein each unique ID number comprises a caller-ID.

31. A method of providing message notification in a telephone network having a voicemail server, said method comprising:

providing a unique ID number associated with message status, and

responding to a CPE device to transmit said unique ID number according to the presence or absence of a message in said voicemail server.

32. The method of claim 31, wherein said unique ID number comprises a caller-ID.

33. The method of claim 31, further comprising:

providing multiple unique ID numbers for multiple mailboxes of said voicemail server; and

responding to the CPE device to transmit one of the multiple unique ID numbers associated with a mailbox having a voicemail message.

34. The method of claim 31, further comprising:

providing call-waiting in the telephone network, and

interrupting the responding step in response to an incoming call by detecting one of a caller-ID signal and an in-band call-waiting tone.